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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/696,491	10/25/2000	David W. Paranchych	NORT0031US(10955RRUS02U)	3619

7590 05/12/2005

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EXAMINER

NGUYEN, DAVID Q

ART UNIT	PAPER NUMBER
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2681

DATE MAILED: 05/12/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	09/696,491	PARANCHYCH ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	David Q Nguyen	2681	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 31 January 2005.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 2-4,6-10,13,15-24,26,28,30-32,37 and 38 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 2-4,6-10,13,15-24,26,28,30-32,37 and 38 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Response to Arguments*

1. Applicant's arguments with respect to claims 2-4,6-10,13, 15-24, 26, 28,30-32, 37-38 have been considered but are moot in view of the new ground(s) of rejection.

### *Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 2,4,7-9,13,15-20, 22-24,26, 28,30-32 and 37 are rejected under 35 U.S.C. 102(e) as being anticipated by Wang et al. (US 6590847).

Regarding claim 4, Wang et al. discloses a method of performing power control in a mobile communications system having a base station and a mobile unit, comprising: detecting an error in control signaling transmitted over a reverse link between the base station and the mobile unit when traffic channels are not being communicated in the reverse link (see col. 5, lines 30-52 and see col. 7, lines 20-50 and col. 9, lines 20-41); adjusting a power control element based on the detected error (see col. 5, lines 30-52 and see col. 7, lines 20-50 and col. 9, lines 20-41), wherein adjusting the power control element comprises adjusting a target ratio of energy per bit to noise spectral density based on the detected error in the control signaling (see col. 7, lines 20-50 and col. 9, lines 20-41).

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Regarding claim 2, the method of Wang also discloses wherein detecting the error occurs during a discontinuous transmission mode (see col. 7, lines 20-50 and col. 9, lines 20-41).

Regarding claims 7 and 8, the method of Wang et al also discloses wherein detecting the error comprises detecting an error in a given number of samples and bits of the control signaling (see col. 7, lines 20-50 and col. 9, lines 20-41).

Regarding claim 9, the method of Wang et al also discloses communicating a power control command based on the power control element to affect transmission power of the mobile unit (see col. 7, lines 20-50 and col. 9, lines 20-41).

Regarding claim 13, the method of Wang et al also discloses receiving the control signaling over a link according to a code-division multiple access protocol (see col. 5, lines 30-52; col. 7, lines 20-50 and col. 9, lines 20-41).

Regarding claim 15, the method of Wang et al also discloses detecting that the mobile unit is in discontinuous transmission mode, wherein detecting the error and adjusting the power control element are performed while the mobile unit is in the discontinuous transmission mode (see col. 5, lines 30-52; col. 7, lines 20-50 and col. 9, lines 20-41).

Regarding claim 16, the method of Wang et al also discloses detecting that the mobile unit is in discontinuous transmission mode comprises detecting a power level of a traffic channel transmitted by the mobile unit (see col. 5, lines 30-52; col. 7, lines 20-50 and col. 9, lines 20-41).

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Regarding claims 17 and 18, the method of Wang et al also discloses wherein detecting that the mobile unit is in discontinuous transmission mode comprises detecting a state of a predetermined information field; wherein the information field comprises one or more power control bits of data frame transmitted by the mobile unit (see col. 5, lines 30-52; col. 7, lines 20-50 and col. 9, lines 20-41).

Regarding claim 19, the method of Wang et al also wherein adjusting the power control element is based on the detected error if the mobile unit is detected to be in the discontinuous transmission mode (see explanation above); adjusting the power control element is based on the frame error rate of the traffic channels when the mobile unit is detected to be not in the discontinuous transmission mode (see col. 5, lines 30-52; col. 7, lines 20-50 and col. 9, lines 20-41).

Regarding claim 20, Wang et al discloses a system for use in a mobile communications system, comprising a receiver to receive control signaling and traffic signaling from a mobile unit (see fig. 2, col. 7, lines 20-22); a controller to detect whether the mobile unit is discontinuous transmission mode (see col. 7, lines 20-50 and col. 9, lines 20-41); detect for error in the received control signaling from the mobile unit and to adjust a power control condition based on detected error in the received control signaling in response to detecting that the mobile unit is in the discontinuous transmission mode (see col. 7, lines 20-50 and col. 9, lines 20-41); and detect for error in the traffic signaling from the mobile unit and to adjust the power control condition based on detected error in the traffic signaling in response to detecting that mobile unit is not in the discontinuous transmission mode (see col. 7, lines 20-50 and col. 9, lines 20-41).

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Regarding claim 22, the system of Wang et al also discloses the receiver is adapted to receive code division multiple access control signaling (see col. 5, lines 30-52).

Regarding claim 23, the system of Wang et al also mentions the receiver is adapted to receive IS-2000 control signal (see col. 2, lines 34-55).

Regarding claim 24, the system of Wang et al also disclose wherein the traffic signaling is not transmitted during discontinuous transmission mode (see col. 4, lines 27-43; col. 5, lines 30-52; col. 7, lines 20-50 and col. 9, lines 20-41).

Regarding claim 26, the system of Wang et al also discloses wherein the control and traffic signaling are communicated in a reverse link between the mobile unit and a base station (see col. 5, lines 30-52; col. 7, lines 20-50 and col. 9, lines 20-41).

Regarding claim 28, the system of Wang et al also discloses the power control condition comprises a target ratio of energy per bit to noise spectral density (see col. 5, lines 30-52; col. 7, lines 20-50 and col. 9, lines 20-41).

Regarding claim 30, the method of Wang et al disclose an article comprising one or more machine-readable storage media containing instructions for performing tasks in a mobile communications system, the mobile communications system having a mobile unit, a base station, and a link between the mobile unit and base station, the instructions when executed causing a controller to: determine whether the mobile unit is in discontinuous transmission mode (see col. 7, lines 20-50 and col. 9, lines 20-41); detect for one or more errors in control signaling received over the link (see col. 7, lines 20-50 and col. 9, lines 20-41); and adjust a power control element based on the detected one or more errors in the control signaling if the mobile unit is in the discontinuous transmission mode (see col. 7, lines 20-50 and col. 9, lines 20-41); adjusting the power control element

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based on the detected one or more errors in the control signaling if the mobile unit is not in the discontinuous transmission mode and detecting for one or more errors in traffic signaling received over the link (see col. 7, lines 20-50 and col. 9, lines 20-41).

Regarding claims 31-32, the article of Wang et al. also discloses instructions that when executed cause the controller to increase or decrease a target ratio of energy per bit to noise spectral density if an error rate exceeds or does not exceed threshold (see col. 7, lines 20-50 and col. 9, lines 20-41).

Regarding claim 37, the article of Wang et al also discloses wherein detecting one or more errors in the control signaling comprises detecting one or more errors in control signaling received over a reverse wireless link from the mobile unit (see col. 5, lines 30-52; col. 7, lines 20-50 and col. 9, lines 20-41); wherein adjusting the power control element based on one or more errors in the control signaling of the reverse wireless link if the mobile unit is in discontinuous transmission mode (see col. 5, lines 30-52; col. 7, lines 20-50 and col. 9, lines 20-41).

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 3,21 and 38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wang et al. (US 6590847) in view of Willenegger et al. (US 5933781).

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Regarding claim 3, the method of Wang does not mention receiving a pilot channel from the mobile unit over the link, the control signaling comprising the pilot channel, wherein detecting the error in control signaling comprises detecting the error in the pilot channel from the mobile unit. However, Willenegger et al disclose receiving a pilot channel from the mobile unit over the link, the control signaling comprising the pilot channel, wherein detecting the error in control signaling comprises detecting the error in the pilot channel from the mobile unit (see col. 5, lines 40-55). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the above teaching of Willenegger to Wang et al in order to avoid interference and provide good signal quality in wireless mobile system.

Regarding claim 21, the system of Wang et al does not mention wherein the control signaling comprises a pilot channels and the controller is adapted to detect an error in the pilot channel and to adjust the power control condition based on the detected error in the pilot channel in response to detecting that the mobile unit is in the discontinuous transmission mode. However, Willenegger et al disclose wherein the control signaling comprises a pilot channels and the controller is adapted to detect an error in the pilot channel and to adjust the power control condition based on the detected error in the pilot channel (see col. 5, lines 40-55). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the above teaching of Willenegger to Wang et al in order to avoid interference and provide good signal quality in wireless mobile system.

Regarding claim 38, the article of Wang et al does not mention wherein detecting one or more errors in the control signaling comprises detecting one or more errors in a



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pilot channel received over a reverse wireless link from the mobile unit; wherein adjusting the power control element comprises adjusting the power control element based on one or more errors in the pilot channel if the mobile unit is in discontinuous transmission mode. However, Willenegger et al disclose detecting one or more errors in the control signaling comprises detecting one or more errors in a pilot channel received over a reverse wireless link from the mobile unit; wherein adjusting the power control element comprises adjusting the power control element based on one or more errors in the pilot channel (see col. 5, lines 40-55). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the above teaching of Willenegger to Wang et al in order to avoid interference and provide good signal quality in wireless mobile system.

4. Claims 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wang et al. (US 6590847) in view of Nakano et al. (US Patent Number 5933782).

Regarding claim 10, the method of Wang does not mention detecting the error comprises detecting a bit error rate. However, Nakano discloses detecting the error comprises detecting a bit error rate (see col. 7, lines 58-63). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the above teaching of Nakano to Wang in order to avoid interference and provide good signal quality in wireless mobile system.

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***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Lee et al (US 6,731,948) discloses method for supporting a discontinuous transmission mode in a base station in a mobile communication system. .

Any inquiry concerning this communication or earlier communications from the examiner should be directed to David Q Nguyen whose telephone number is 571-272-7844. The examiner can normally be reached on 8:30AM-5:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Moise Emmanuel can be reached on (571) 272-3865. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
David Nguyen

  
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**SUPERVISORY PATENT EXAMINER**